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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,377	03/25/2004	Kerfegar K. Katrak	GP-302755	2076

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EXAMINER
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TRAN, DALENA

ART UNIT	PAPER NUMBER
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3661

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/811,377	<b>Applicant(s)</b> KATRAK ET AL.	
	<b>Examiner</b> Dalena Tran	<b>Art Unit</b> 3661	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7,9,12-18,20 and 23 is/are rejected.
- 7) ☒ Claim(s) 8,10,11,19,21 and 22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

**Notice to Applicant(s)**

1. This application has been examined. Claims 1-23 are pending.
2. The dependency of claim 18 need to be corrected because claim 12 is an apparatus claim. This office action is assuming that claim 18 depended on claim 13.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 5-7, 9, 12-13, 17-18, 20, and 23, are rejected under 35 U.S.C. 103(a) as being unpatentable over Isaji et al. (5,157,956) in view of Underwood et al. (5,508,594).

As per claim 1, Isaji et al. disclose an apparatus for generating a vehicle control signal that controls a function of a vehicle device associated with a sensed event, the apparatus comprising: a first sensor configured to provide a first sensor output signal having a first magnitude that approximately corresponds to the sensed event with a first level of accuracy (see column 2, lines 32-55; and columns 5-6, lines 64-16), a second sensor configured to provide a second sensor output signal having a second magnitude that approximately corresponds to the sensed event with a second level of accuracy that is less than said first level of accuracy (see column 6, lines 17-46); and columns 7-8, lines 45-9); a processor configured to receive said first sensor output signal and second sensor output signal (see columns 2-3, lines 56-27), and said processor being arranged to:

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provide the vehicle control signal to the vehicle device for controlling the function of the vehicle device associated with the sensed event monitored by the first sensor and the second sensor in response to the vehicle output signal with magnitude (see columns 3-4, lines 28-7; and columns 8-9, lines 10-24). Isaji et al. do not disclose calculate a magnitude for the vehicle control signal based on an average of a weighted value. However, Underwood et al. disclose calculate a magnitude for the vehicle control signal based on an average of a weighted value of said first magnitude of first sensor output signal and second magnitude of second sensor output signal; and generate the vehicle control signal with magnitude (see columns 13-14, lines 42-16). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Isaji et al. by combining calculate a magnitude for the vehicle control signal based on an average of a weighted value to accurately calculate vehicle signal to control the vehicle.

Also, as per claim 5, Underwood et al. disclose at least one of first sensor and second sensor is an analog sensor (see columns 9-10, lines 60-18; and columns 11-12, lines 51-26).

As per claim 6, Isaji et al. disclose first sensor and second sensor monitor the displacement of an accelerator control mechanism that is configured to control a position of a throttle valve located in an air intake path of an internal combustion engine (see columns 4-5, lines 34-17).

As per claim 7, Isaji et al. do not disclose calculate a difference between first magnitude and second magnitude. However, Underwood et al. disclose processor is further arranged to: calculate a difference between first magnitude and second magnitude,

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compare difference to a correlation threshold, generate vehicle control signal with magnitude substantially equal to the lesser of said first magnitude and said second magnitude if difference is greater than said correlation threshold (see columns 13-14, lines 42-3); and calculate magnitude for the vehicle control signal based on the average of weighted value of first magnitude and second magnitude if difference is less than said correlation threshold (see column 14, lines 4-16). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Isaji et al. by combining calculate a difference between first magnitude and second magnitude to detect an error and select vehicle control signal.

As per claim 9, Isaji et al. disclose first sensor is coupled to second sensor such that first magnitude is changed substantially simultaneously with second magnitude in response to the change in the sensed event (see columns 10-11, lines 3-49).

As per claim 12, Isaji et al. disclose weighted value of magnitude of first sensor output signal is greater than one (see columns 10-11, lines 60-49).

Claim 13, is a method claim corresponding to an apparatus claim 1 above. Therefore, it is rejected for the same rationales set forth as above.

Claims 17, and 18, are method claims corresponding to apparatus claims 5, and 7 above. Therefore, they are rejected for the same rationales set forth as above.

Claim 20, is a method claim corresponding to an apparatus claim 9 above. Therefore, it is rejected for the same rationales set forth as above.

Claim 23 is a combination of claims 1 and 6 above. Therefore, it is rejected the same as above.

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5. Claims 2-4, and 14-16, are rejected under 35 U.S.C. 103(a) as being unpatentable over Isaji et al. (5,157,956), and Underwood et al. (5,508,594) as applied to claim 1 above, and further in view of Reppich et al. (5,320,076).

As per claim 2, Isaji et al., and Underwood et al. do not disclose first sensor is a first technology type and second sensor is a second technology type other than first technology type. However, Reppich et al. disclose first sensor is a first technology type and second sensor is a second technology type other than first technology type (see column 3, lines 9-22). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Isaji et al., and Underwood et al. by combining first sensor is a first technology type and second sensor is a second technology type other than first technology type for accurately measure vehicle control signals.

As per claims 3-4, Reppich et al. disclose first sensor is an analog sensor comprising at least one resistive element (see columns 3-4, lines 27-15), and said second sensor comprises a Hall Effect component, and one at least one of first sensor and second sensor comprise a giant magneto resistive component. (see columns 6-8, lines 45-7).

Claims 14-16, are method claims corresponding to apparatus claims 2-4 above. Therefore, they are rejected for the same rationales set forth as above.

6. Claims 8, 10-11, 19, and 21-22, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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### Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

. Pursifull (6,499,462)

. Bauerle et al. (6,513,492)

. Hashimoto et al. (6,751,544)

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalena Tran whose telephone number is 571-272-6968. The examiner can normally be reached on M-F 6:30 AM-4:00 PM), off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 571-272-6956. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner  
Dalena Tran



May 27, 2005